



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,468	02/26/2004	Kiyoshi Murakami	044499-0206	9316

22428 7590 10/04/2005

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

ARBES, CARL J

ART UNIT	PAPER NUMBER
----------	--------------

3729

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 3729

Applicant's Response to the Office Restriction which Restriction was mailed on or about 05 July 2005 has been reviewed and is held to be without substantive merit with respect to the Restriction Requirement. That is the Examiner has and continues to hold that the Restriction was and yet is proper and correct. In view of this holding and further in view of Applicant's remarks thereto the Restriction is hereby no **made Final**. Applicant therefore is required to either cancel all non-elected claims or take other appropriate action.

An Office Action on the merits of Claims 1-7.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent Claims 1-3 recite *inter alia* ...wherein it is inspected on a substrate undergoing the first component mounting step whether a component mounted in the first component mounting step is included in a region corresponding to a component mounting position in the second component mounting step... or similar language. This language implies that there is at least one component which has been mounted already. And yet Applicant does not recite the step of: mounting at least one electronic component in the claim. Moreover even assuming that there is one component mounted, what does this recited language exclude and what does it include? For example, what does the word "it" mean in the ultimate phrase in claim 1? Does the word "it" mean the substrate? Does the word "it" mean electronic component? Or does the word "it" mean something other than these guessed-at words? What region is the

Art Unit: 3729

applicant referring (again in Claim 1) when the claim recites "in a region corresponding to the component mounting position in the second component mounting step"? (the ending language in claim 1). Applicant is requested to carefully define this region or at least provide some indicia of what this region is or is not (includes or not includes).

Applicant recites language which is not clear. Applicant moreover does not distinctly claim the invention nor does he particularly point it out. Similar remarks are as equally applicable for Claims 2-5.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, assuming the claims are definite and clear, are further rejected under 35 U.S.C. 103(a) as being unpatentable over Suhara (Pat. No. 6,941,646 B2) hereinafter Suhara.

Suhara teaches an electric-component detecting system which is used for mounting components. The system comprises a substrate-holding device which has at least one substrate fiducial mark, a mounting head which is capable of receiving an electric component from a supplying device, a fiducial-mark imaging device operable to take an image of at least the holding mark on the substrate holding device and an image of at least one substrate fiducial mark on the circuit substrate, a relative movement device to move the component-supplying device, the substrate holding device the mounting head and the fiducial-mark imaging device and a control device

Art Unit: 3729

which includes a relative-positioning error obtaining portion to obtain a first relative positioning error between the fiducial-mark imaging device and the substrate holding device on the basis of the positioning error of the image of at least one holding device fiducial mark within the imaging area of the fiducial-imaging device, a second relative positioning- error obtaining portion to obtain a second relative positioning error between fiducial mark imaging device and the circuit substrate on the basis of the image of at least one substrate fiducial mark within the imaging area of the fiducial-mark imaging device and a movement control portion to control the relative movement device for moving the mounting head and the substrate-holding device to a predetermined position as adjusted on the basis of at least first and second relative positioning errors. (Cf Claim 1 of Suhara). It is apparent from Applicant's claims that the inspection method comprises analyzing and comparing (by a first imaging) a substrate which is about to undergo an electronic component placement thereon and a second inspection (or imaging) of the component. Suhara as well as Applicant is concerned with whether the electronic component will be properly placed onto the substrate. It is concluded from Applicant's fairly difficult-to-follow recitation in the claims that if the inspection by means of Suhara's system (which includes at least an imaging device and controlling mean) is capable and does indicate whether the component mounted in the first component mounting step is included in a region corresponding to the mounting position in the second component mounting step is not anticipated by Suhara, it would have been obvious for a POSITA to perform this step or act, given the evidence by Suhara. As applied to Claim 7 it is no patentable significance that the second component have an


Art Unit: 3729

odd shape. That is Suhara's system will work just as effectively with odd shaped components as with regularly shaped components. Alternatively the limitation recited in Claim 7 is held to be mere design choice inasmuch as Applicant spells out no particular purpose therefore nor solves any specific problem thereby.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. J. Arbes whose telephone number is 571-272-4563. The examiner can normally be reached on M, T R and F from 8 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Vo, can be reached on 571-272-4563. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


C. J. Arbes
Primary Examiner
Art Unit 3729